

# PHOENIX GOLD®



## SUBWOOFER MANUAL MANUEL DE SUBWOOFER

**Models: R310d4, R310d2, R312d4, R312d2**

### Features

- One Piece Aluminum Plated Dustcap
- Long Throw Rubber Surround
- Flat Non-Linear Roll Spider
- High Temperature OFC Voice Coils
- Rigid Stamped Steel Frame
- Nickel Plated 12 Gauge Speaker Terminals
- High Excursion Motor Design

### Caractéristiques

- Pare-poussière monopièce plaqué aluminium
- Enceinte d'ambiance avec contour en caoutchouc de longue portée
- Anneau de centrage plat à excursion linéaire
- Bobines acoustiques en cuivre exempt d'oxygène à haute température
- Panier rigide en acier
- Bornes d'enceinte nickelées de calibre 12
- Modèle de moteur à grand battement

### ENCLOSURES

#### ENCLOSURE INFORMATION

Phoenix Gold subwoofers are overbuilt in virtually every way conceivable. It is important that the subwoofer's enclosure is built to these same exacting standards. The enclosure must be constructed of at least .75 inch MDF. Screws or air staples are excellent construction fasteners when used with a strong bonding "yellow" wood working glue that can fill joint gaps. Be sure that the enclosure's panels are airtight at all joining seams. Lining the walls with a polyester matting 1 to 3 inches thick is sufficient.

Your PG dealer has extensive knowledge, tools and the experience needed for the design and construction necessary for your subwoofer application. We also recommend you consult with your dealer for specific technical assistance related to your installation. The charts provided should be used as a reference when building an enclosure for your subwoofer. The charts contain several enclosure types. The Sound Quality enclosure provides deeper, tighter, and more musical output to truly reproduce the original source material. The SPL enclosure fits the "basshead's" need for maximum output while sacrificing some sound quality. The normal enclosure is a balance between SPL and SQ.

#### INFORMATIONS SUR L'ENCEINTE

Les caissons d'extrêmes graves sont fabriqués en fonction de normes rigoureuses afin de fournir des années de plaisir acoustique. Il est important que l'enceinte du caisson des extrêmes graves soit construite en fonction de ces mêmes normes rigoureuses. L'enceinte doit comprendre au moins un RP d'au moins 3/4" de pouces. Les vis ou agrafeuses pneumatiques constituent d'excellentes pièces de fixation lorsqu'elles sont utilisées avec une colle forte de couleur «jaune» pour le travail du bois qui peut combler les écarts de jointures. Assurez-vous que les panneaux de l'enceinte soient étanches au niveau de toutes les piqûres de liaison. Le revêtement des murs à l'aide d'une natte en polyester épaisse de 1 à 3 pouces suffit.

Votre concessionnaire PG dispose de grandes connaissances, d'outils et d'expérience requise pour la conception et la constructions de votre application de caisson d'extrêmes graves. Nous recommandons également de consulter votre concessionnaire afin d'obtenir une assistance technique spécifique se rapportant à votre installation. Les tableaux fournis devraient être utilisés comme référence au moment de construire une enceinte pour votre caisson aux extrêmes graves PG. Les tableaux présentent plusieurs types d'enceinte. L'enceinte de Qualité du son offre une sortie de musique qui est plus profonde, plus serrée et davantage de sortie sonore afin de reproduire véritablement le matériau source d'origine. L'enceinte SPL satisfait le besoin en «basshead» pour une sortie maximale tout en sacrifiant un peu de la qualité du son.

### ENCLOSURE RECOMMENDATIONS

Volume(cu.ft.)	R310d4/2	R312d4/2
<b>SPL</b>	<b>0.3</b>	<b>0.75</b>
<b>Normal</b>	<b>0.6</b>	<b>1.0</b>
<b>SQ</b>	<b>0.8</b>	<b>1.5</b>

VENTED - SPL	R310d4/2	R312d4/2
<b>Volume(cu.ft.)</b>	<b>1.25</b>	<b>1.75</b>
<b>Vent Opening(in.)</b>	<b>2 x 10</b>	<b>2 x 12</b>
<b>Vent Length(in.)</b>	<b>22</b>	<b>23</b>
<b>Tuning Freq</b>	<b>42hz</b>	<b>38hz</b>

- For vented enclosures a subsonic filter set at 25Hz to 35Hz is highly recommended.
- Sealed enclosure volumes INCLUDE THE DISPLACEMENT of the subwoofer.
- Vented enclosure volumes INCLUDE THE DISPLACEMENT of the subwoofer. But DO NOT include displacement of the vent.

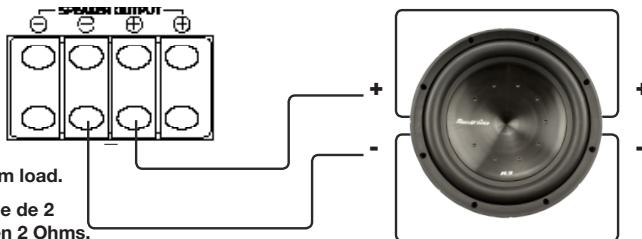
VENTED - Normal	R310d4/2	R312d4/2
<b>Volume(cu.ft.)</b>	<b>1.75</b>	<b>2.0</b>
<b>Vent Opening(in.)</b>	<b>2 x 10</b>	<b>2 x 12</b>
<b>Vent Length (in.)</b>	<b>21</b>	<b>24</b>
<b>Tuning Freq</b>	<b>36hz</b>	<b>35hz</b>

VENTED - SQ	R310d4/2	R312d4/2
<b>Volume(cu.ft.)</b>	<b>2.0</b>	<b>2.5</b>
<b>Vent Opening(in.)</b>	<b>2 x 10</b>	<b>2 x 12</b>
<b>Vent Length(in.)</b>	<b>21</b>	<b>23</b>
<b>Tuning Freq</b>	<b>34hz</b>	<b>32hz</b>

**SYSTEM DIAGRAMS****R312d4 SINGLE SUBWOOFER SYSTEM**

R250.1/R500.1 + (1) R312d4

All voice coils are wired in parallel for 2 ohm load.  
 R250.1 and R500.1 make maximum power into 2 ohm load.  
 Toutes les bobines mobiles sont câblées en parallèle de 2 Ohms. R250.1 et R500.1 faire puissance maximale en 2 Ohms.

**R312d4 DUAL SUBWOOFER SYSTEM**

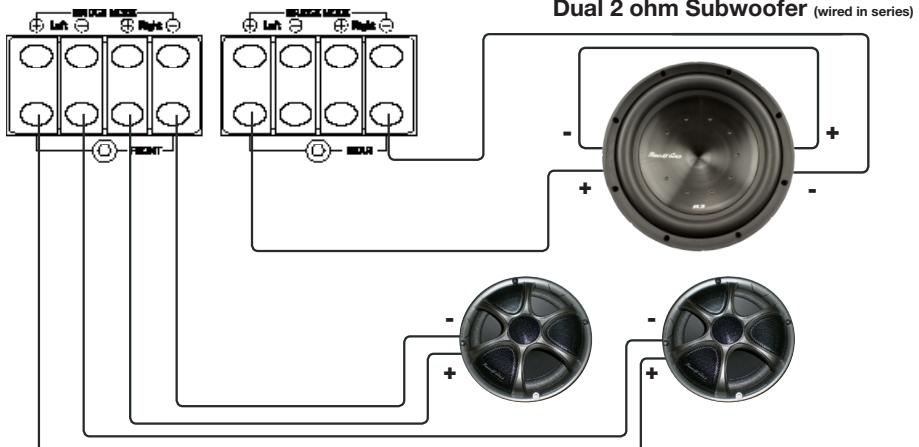
R1000.1/SD600.1/S1000.1 + (2) R312d4

All voice coils are wired in parallel for 1 ohm load.  
 Amplifier makes maximum power into 1 ohm load.  
 Toutes les bobines mobiles sont câblées en parallèle pour 1 Ohms. R1000.1/SD600.1/S1000.1 rend la puissance maximale de charge en 1 ohm.

**R312d2 FOUR CHANNEL SYSTEM**

R300.4 + R65CX 4 ohm stereo front and R312d2 4 ohm bridged rear

R300.4 makes maximum power into a 4 ohm bridged load. Subwoofer is dual 2 ohm and wired in series for a final load of 4 ohm.  
 R300.4 faire puissance maximale en 4 ohm charge combinée.  
 Note: S400.4, Ti600.4, SD500.4 can be substituted for R300.4 in this system. System wiring is similar.



## SPECIFICATIONS

T/S Parameters:	R310d2	R310d4	R312d2	R312d4
<b>Re (Dcr)</b>	<b>.85</b>	<b>1.8</b>	<b>.85</b>	<b>1.8</b>
<b>FS (Hz)</b>	<b>35.3</b>	<b>38.1</b>	<b>30.2</b>	<b>32.7</b>
<b>Sd (SqM)</b>	<b>.033</b>	<b>.033</b>	<b>.05</b>	<b>.05</b>
<b>BL TM</b>	<b>6.94</b>	<b>8.87</b>	<b>7.63</b>	<b>9.15</b>
<b>Qms</b>	<b>4.49</b>	<b>4.17</b>	<b>4.43</b>	<b>4.68</b>
<b>Qes</b>	<b>.464</b>	<b>.553</b>	<b>.472</b>	<b>.63</b>
<b>Qts</b>	<b>.42</b>	<b>.49</b>	<b>.43</b>	<b>.56</b>
<b>Vas (liters)</b>	<b>28.13</b>	<b>28.33</b>	<b>55.72</b>	<b>59.78</b>
<b>Cms (uM/N)</b>	<b>171.55</b>	<b>172.81</b>	<b>162.84</b>	<b>166.56</b>
<b>Mms (gms)</b>	<b>118.69</b>	<b>101.14</b>	<b>169.73</b>	<b>142.43</b>
<b>SPL</b>	<b>90dB</b>	<b>90dB</b>	<b>90dB</b>	<b>90dB</b>
<b>Impedance</b>	<b>Dual 2</b>	<b>Dual 4</b>	<b>Dual 2</b>	<b>Dual 4</b>

Specifications:	R310d4/2	R312d4/2
<b>RMS Power Handling</b>	<b>400 watts</b>	<b>400 watts</b>
<b>PEAK Power Handling</b>	<b>800 watts</b>	<b>800 watts</b>
<b>Xmax (Peak to Peak)</b>	<b>30mm</b>	<b>30mm</b>
<b>Mounting Diameter</b>	<b>9 1/4in - 235mm</b>	<b>11 1/8in - 282mm</b>
<b>Mounting Depth</b>	<b>5in - 129mm</b>	<b>5 1/4in - 134mm</b>

\*Specifications subject to change

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### LIMITED WARRANTY

Phoenix Gold warrants this product to be free of defects in materials and workmanship for a period of one (1) year from the original date of purchase. This warranty is not transferable and applies only to the original purchaser from an authorized Phoenix Gold dealer in the United States of America only. Should service be necessary under this warranty for any reason due to manufacturing defect or malfunction, Phoenix Gold will (at its discretion), repair or replace the defective product with new or remanufactured product at no charge. Damage caused by the following is not covered under warranty: accident, misuse, abuse, product modification or neglect, failure to follow installation instructions, unauthorized repair attempts, misrepresentations by the seller. This warranty does not cover incidental or consequential damages and does not cover the cost of removing or reinstalling the unit(s). Cosmetic damage due to accident or normal wear and tear is not covered under warranty.

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